

WHAT IS CLAIMED:

1. A computerized method for administering a benefit plan having a feature that provides a stream of systematic withdrawal payments during a liquidity period and a subsequent stream of annuity payments to be paid to the owner under the plan if the annuitant is living when the systematic withdrawal payments cease, comprising the steps of:

a) storing data relating to the benefit plan, including data relating to at least one of an account value, an assumed investment rate, systematic and annuity payments, the liquidity period, an annuity period, and an annuity payout option;

b) during the liquidity period:

1. determining a special annuity factor;
2. determining an amount of an initial payment, and paying said amount to the owner;
3. periodically determining the account value;
4. periodically determining an amount of a current payment;
5. monitoring the account value for unscheduled payments made under the contract and making corresponding adjustments to future payments; and
6. periodically paying the current payment to the owner;

c) determining the account value to be annuitized at the end of the liquidity period; and

d) during the annuity period:

1. determining an amount of an initial annuity payment, and paying said amount to the owner;
2. periodically determining an amount of a current annuity payment; and
3. periodically paying the current annuity payment to the owner.

2. The method of Claim 1, wherein the special annuity factor is calculated at issue using the following formula:

$$\text{Special Annuity Factor} = \left[ \sum_{t=0}^{n-1} v^t \right] + \left[ v^n \times \sum_{s=0}^{\omega} v^s \times {}_s p_{x+n} \right] (1+L)$$

Where:

$v$	=	$1/(1+\text{AIR})$
AIR	=	assumed investment rate for variable annuities or guaranteed interest rate for fixed annuities
$n$	=	number of years in the liquidity period
$\sum v^t$	=	present value, discounting for interest only, of \$1 paid annually from $t=0$ to $t=n-1$
$v^n$	=	present value, discounting for interest only, of \$1 paid at $t=n$
$\sum v^s \times {}_s p_{x+n}$	=	present value, discounting for interest and mortality, of \$1 paid annually from $s=0$ to the end of the mortality table
$L$	=	expense load (positive or negative)

3. The method of Claim 1, wherein the initial payment is calculated at issue using the following formula:

$$\text{Payment}_0 = \text{Net Account Value}_0 / \text{Special Annuity Factor}$$

Where:	$\text{Payment}_0$	= initial payment
	$\text{Net Account Value}_0$	= initial account value, net of any initial charge for benefit guarantees
	Special Annuity Factor	= special annuity factor calculated at issue.

4. The method of Claim 1, wherein payments made subsequent to the initial payment are determined by the following formula:

$$\text{Payment}_{t+1} = \text{Payment}_t \times [(1+i)/(1+\text{AIR})]$$

Where:  $\text{Payment}_{t+1}$  = payment made at time  $t + 1$

$\text{Payment}_t$  = payment made at time  $t$

$i$  = net fund performance (or interest credited) during period  $t$  to  $t+1$ , net of any contract charges

AIR = assumed investment rate for variable annuities or guaranteed interest rate for fixed annuities.

5. The method of Claim 1, wherein the account value during the liquidity period is determined by the following formula:

$$\text{Account Value}_{t+1} = (\text{Account Value}_t - \text{Payment}_t) \times (1+i)$$

Where:  $\text{Payment}_t$  = payment made at time  $t$

$\text{Account Value}_{t+1}$  = account value at time  $t+1$

$\text{Account Value}_t$  = account value at time  $t$

$i$  = net fund performance (or interest credited) during period  $t$  to  $t+1$ , net of any contract charges.

6. The method of Claim 1, wherein the step of making adjustments to future payments due to an unscheduled payment comprises the steps of re-determining the account value as of the time the next systematic payment is due, and determining the next systematic payment as if it was an initial payment based on the re-determined account value and the time remaining in the liquidity period.

7. The method of Claim 1, wherein the initial annuity payment is calculated using the following formula:

$$\text{Annuity Payment}_n = \text{Account Value}_n / \text{AF}_n$$

Where:  $\text{Annuity Payment}_n$  = initial annuity payment made at time  $n$

$\text{Account Value}_n$  = account value at time  $n$

$\text{AF}_n$  = attained age annuity factor at time  $n$ .

8. The method of Claim 1, wherein the initial annuity payment is calculated using the following formula:

$$\text{Annuity Payment}_n = \text{Payment}_{n-1} \times [(1+i)/(1+\text{AIR})]$$

Where:  $\text{Annuity Payment}_n$  = initial annuity payment made at time  $n$

$\text{Payment}_{n-1}$  = final payment made during the liquidity period

$i$  = net fund performance (or interest credited) during period  $n-1$  to  $n$ , net of any contract charges

AIR = assumed investment rate for variable annuities or guaranteed interest rate for fixed annuities.

9. The method of Claim 8, wherein annuity payments subsequent to the initial annuity payment are determined by the following formula:

$$\text{Annuity Payment}_{t+1} = \text{Annuity Payment}_t \times [(1+i)/(1+\text{AIR})]$$

Where:  $\text{Annuity Payment}_{t+1}$  = annuity payment paid at time  $t+1$

$\text{Annuity Payment}_t$  = annuity payment paid at time  $t$

$i$  = net fund performance (or interest credited) during period  $t$  to  $t+1$ , net of any contract charges

AIR = assumed investment rate for variable annuities or guaranteed interest rate for fixed annuities.

10. The method of Claim 1, wherein the benefit plan is a straight life annuity benefit plan.

11. The method of Claim 1, wherein the benefit plan is a life annuity benefit plan having at least one of a death benefit and a surrender benefit.

12. The method of Claim 11, wherein said surrender benefit or death benefit is dependent upon the present value of specified future benefits.

13. The method of Claim 1, further comprising the step of determining a cost of providing the annuity at the end of the liquidity period.

14. The method of Claim 13, further comprising the step of deducting the cost from the account value at the time of annuitization.

15. The method of Claim 13, further comprising the step of reducing the annuity payments in an amount which is related to the cost of annuitization.

16. The method of Claim 13, further comprising the step of deducting a charge from the systematic payments during the liquidity period to offset the cost of annuitization.

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